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中国新发現的两蜥蜴化石

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地質部地質科学研究院地层古生物研究室保存有两块含有脊椎动物化石的岩心。这两块标本极有意义，代表在我国新发現的蜥蜴类。这一类化石在我国发現不多，所以更值得予以記录。

亚目 蜥蜴类 Lacertilia

科 穴蜥科 Amphisbaenidae

属 昌乐蜥 *Changlosaurus*（新属）

种 五图昌乐蜥 *Changlosaurus wutuensis*（新种）

正型标本 一左上顎的大部分，具有五个保存完好的牙齿。另在附近靠上顎骨后部有两个牙齿和几个牙齿的印痕，不一定和前者同一个体。采集人：陈顾亭、周志武。野外号碼 X02，1960 年，古脊椎动物与古人类研究所編号 V. 2527。

层位与地点 漸新統或始新統上部。山东昌乐五图。

特性 較大的穴蜥类，比 *Crythiosaurus mongoliensis* 大一倍多，上顎骨上部和前額骨、鼻骨部分凹陷，前額骨小，眼孔下无牙齿。牙粗壮而具有銳尖，大小相間，排列較紧。

描述 标本保存于岩心的边緣，岩心为黑綠色砂頁岩所成。前部前上顎部分缺失。上顎骨的前部似也不全，但所失不多，因为鼻骨后部可以局部看出。上顎骨的上后部及一部分前額骨也可以辨認。上顎骨上部与前述两骨显著地凹陷。牙列后顎骨之伸长部分与前額骨形成左眼眶的前下部。就所保存的各骨来看显然代表一較大的穴蜥类。

在左上顎骨上保存有五个完好的牙齿。其前部可能还有一个或两个牙，后部无牙齿的痕跡。所以上顎牙齿的数目为 6 或 7。牙齿是典型的穴蜥类式样，粗壮而尖銳，排列較紧。由外边看牙底部，牙齿固着于顎骨的边緣上。微向后弯曲。保存的前一牙最大，但第三第五也相当之大，而第二第四較小。最后一牙（第五牙）仅位于眼眶的前緣前，所以眼眶下沒有牙齿，和在內蒙发現的 *Crythiosaurus mongoliensis* 一样。全标本所存沿牙列总长为 16.5 毫米；前部保存总高 14 毫米，五个保存的牙齿总长 8 毫米。

另外两个牙比前者稍小，但性質完全一样，另有三个印痕紧靠这两牙。此外在三个印痕的对側有一个牙尖方向相反的印痕代表另一牙齿。这两个牙和那四个牙印肯定不归于上述的上顎骨和牙齿，所以不一定为同一个体的（但也不排除同一个体的可能性）。但毫无疑問是归于同一种的。

比較与討論 由保存的部分骨骼，特别是牙齿的特性看来，这个标本应属于穴蜥类。和眞正的穴蜥和化石的 *Ototriton* 相比，一般构造上十分相近。遺憾的是我們不能确

知顎骨牙齿的数目是六个还是七个。在大小上我們的标本比最大的穴蜥类 *Ototriton solidus*（头长 32 毫米）还要大的多。比在内蒙发現的 *Crythiosaurus mongoliensis* 还要大一倍多。后者沒有牙齿保存，也不知道牙齿的数目，但显然不能归于此属。大多数发現于北美的穴蜥类各属都小的多，即使是牙齿数目不清楚也不能归于已知各属的任何一属。看来我們的标本代表一个新属新种，因之取名为五图昌乐蜥（新属、新种）（*Changlosaurus wutuensis* get. et sp. nov.）它的特性如上所述。

化石的穴蜥类发現于中始新統到上新統而以漸新統为最多。山东的标本体形特大，牙列沒有伸到眼孔的下部，牙齿紧密地靠在一起，看来具有进步的性質，所以在年代上属漸新世的可能性比始新世为大。

在亚洲只发現了 *Changlosaurus wutuensis* 一种，显然和山东的标本不同，这个标本是属于早漸新世的。由于我們的化石保存不佳，因而很难判定它到底属于漸新世的那一层位。

穴蜥类是生活于地下的蜥蜴类，头骨坚实，牙齿銳強，适于地下掘居。自內蒙的穴蜥类发現后，大大地扩展了这一类的分布。山东的发現，无疑的表示它的分布远較原来想象的为广。

蜥蜴科 Varanidae

吉林蜥 *Chilingosaurus*（新属）

青山口吉林蜥 *Chilingosaurus chingshankouensis*（新种）

正型标本　在一段岩心上保存有右下顎骨的大部分。采集人：姜援；野外編号 B—2，1960 年，古脊椎动物与古人类研究所編号 V. 2528。

层位与地点　上白垩統（泉头羣青山口組）。吉林省长春市前郭尔罗斯旗，达里巴。

特性　下顎骨的隅骨，上隅骨和冠状骨与齿骨接触部分无关节現象。冠状骨侧有一显著的舌状面引伸到牙列后部。在齿骨侧与下顎骨下緣有平行的瘤状突起。下顎骨下緣非常直，无向下弯曲現象。有十三个牙齿保存，在最前端有一个牙齿，在間隙中可能还有两个牙齿存在。牙为半肋牙式的（Sub-pleurodont）。牙尖而直，无向后弯曲現象。具有或多或少的稜状結构。

描述　标本保存在岩心的靠边緣部分。岩心是一种較硬的淡綠色灰岩。由于标本靠近岩心边部，关节骨全部未保存，其他三骨的后部也多少有些损伤，但所有保存部分都十分清楚完好，可供研究。

下顎骨比較瘦小，前后延伸，下緣成一直綫，只最前部逐漸向上收縮。在齿骨侧面約近中部有一系列前后延伸的瘤状构造伸展到隅骨与上隅骨之間，作为两骨的界限。齿骨后部插于冠状骨和上隅骨之間，但无关节現象。隅骨向前相当的延伸，几乎到牙列下的中部，但非常窄狹。在齿骨后上部与冠状骨下部，上隅骨上部，下顎显然地向內收縮成一斜坡状舌面，因而从侧面看，齿骨后上部和与上述两骨接触部成一显著的稜。

保存牙齿一共有十三个，由前向后計，前三个連一起隔一小間隙，有一单一牙；再后隔一較大間隙有四个牙紧靠一起；再后稍隔間隙有两个牙；后稍隔又有两牙；再隔一大間隙

有最后一牙。在后部間隙中有牙的可能性不大；前端两間隙可能有一到两牙存在；在最前部还有一个牙的印痕。总的說来，大約有十六个牙齿。所以在这一科里牙数是比較多的。牙齿大小不甚相等，由后算起以第五个牙为最大；中部的和最前端的一牙較小。牙齿尖銳細窄且直，除前部三牙外无向后弯曲之状。全为半肋牙式。牙面具有較細緻的条痕和稜。保存部分的总长为 52 毫米；后部极高（冠状骨顶到隅骨下边）17 毫米；保存的牙列长 31 毫米。

比較与討論 由下顎骨和牙齿的性質来看这个标本应当属于蜥蜴科无疑，特别是尖銳而稀疏的牙齿，为这一科的特点。下顎骨各骨的結构和相对位置，也得出同一結論。但是我們标本的下顎骨特别瘦长，下边較直，牙齿也特别尖銳，且大部牙齿是較直的无弯曲状。因此，吉林的蜥蜴化石应当代表一个新的蜥蜴类，我們特取名叫青山口吉林蜥（*Chilingosaurus chingshankouensis*）新属新种。它的特性，有如上述。由于标本不全，我們无法判出它应归于那一个亚科，但是归于 Saniwinae 亚科的可能性非常之大。

在内蒙曾由計尔摩記述了一种归于 Saniwinae 亚科的蜥蜴，名 *Telmasaurus grangeri*，这是在我国以往发现的唯一蜥蜴科化石。这个种的标本，只有一破碎的右下顎骨保存，可和我們的标本相比較，它比我們的标本較大，牙齿底粗上尖，显著地向后弯曲，所以肯定和我們的标本不同。其他蜥蜴科化石距离我們的标本太远，而且大小不同或另有其他性質，或时代不同（多为第三紀初期）和我們的均不相同。

根据野外观察，产这个化石的层位应当是下白堊統。我們研究了这个标本之后，覚得归于白堊紀是无有疑問的。但这个标本看来較为进步，和一些归于下白堊統的蜥蜴类比有很大区别，所以把它当作上白堊統的产物或者更好一些。

在中国发現的蜥蜴类化石不多，只有計尔摩和周明鎮有所报导，这一次在吉林和山东发現的蜥蜴化石，大大地增加了我們对于这一方面的知識。尤其是两个标本都是在鉆探岩心中发現的，不是地面露头上所采的，所以特别值得重視。这也說明鉆探方面的材料是研究化石的一个重要来源。

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ON TWO NEW FOSSIL LIZARDS OF CHINA

(Summary)

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The following described two new fossil lizards increase greatly our knowledge of this group of reptiles which is generally poor in fossil record. Both types were collected by members of the Geological Institute, Ministry of Geology.

DESCRIPTION

Sub-Order Lacertilia

Family Amphisbaenidae

Genus *Changlosaurus* (gen. nov.)

Type species *Changlosaurus wutuensis* (sp. nov.)

Material A nearly complete left maxilla with part of the adjacent bones and five teeth. Two teeth and a few impressions of the same preserved on the posterior part of the same maxilla. Collected by Messrs. K. C. Chen and C. W. Chow. Field number X02, 1960. Cat. No. IVPP, V. 2527.

Horizon and locality Oligocene or upper Eocene. Wutu, Changlo, Shantung.

Diagnosis A rather large amphisbaenid, twice larger than *Crythiosaurus mongoliensis*. Upper part of the maxilla and the adjacent part with the nasal and prefrontal depressed, prefrontal small. No teeth below the orbit. Teeth robust and pointed, rather closely arranged and alternate in size.

Description Anterior part of the maxilla is partly damaged, so that there is no trace of premaxilla. Part of the nasal is visible at the anterior and upper border of the maxilla. The upper border of the maxilla and the nasal is distinctly depressed. The anterior and lower border of the left orbit is made of the posterior elongation of the maxilla and the rather small prefrontal. The preserved part shows that we have to deal with a large amphisbaenid.

There are five maxillary teeth preserved. It is possible that one or two teeth may be present in front of the breakage of the maxilla. If so the number of the cheek teeth may be six or seven, since there is no trace of teeth posterior to the last one below the orbit. The teeth are typically amphisbaenid, robust, pointed, and rather closely situated with smooth surface and ankylosed to the outer margin of the maxilla. They are weakly curved backwards. The first, third and the last are larger while the second and the fourth are smaller. No tooth is observed below the orbit. Total preserved length along the tooth row, 16.5 mm; anterior height, 14 mm; length of the five teeth, 8 mm.

The other two teeth and impressions of the same are the same structure but smaller. They may not belong to the same individual but certainly to the same species.

Comparison It is certain that our form belongs to the family Amphisbaenidae. Comparing with the recent *Amphisbaena* and *Ototriton* it agrees in general aspects. On account of the poor preservation we cannot detect with confidence the number of the cheek teeth. In size our form is even larger than the largest species *Ototriton solidus* (Length of the skull 32 mm) and *Crythiosaurus mongoliensis*. In the latter form the teeth extend backwards below the orbit. The other genera of North America are much smaller than our form. It is therefore obvious that we have to deal with a new amphisbaenid for which the name *Changlosaurus wutuensis* gen. et sp. nov. is proposed.

In view of the many characters of the new form are more advanced, the geological age of the form may be bestly regarded as Oligocene instead of Eocene although somewhat older age of it is not positively excluded.

Family Varanidae

Genus *Chilingosaurus* (gen. nov.)

Type species *Chilingosaurus chingshankouensis* (sp. nov.)

Material A right lower jaw preserved in a core of marl. Collected by Mr. Y. Chiang. Field No. B-2, 1960. Cat. No. V. 2528.

Horizon and locality Upper Cretaceous (Chingshankou Formation, Chuantu Series). Daliba, Changchun, Chiling.

Diagnosis No joint developed between the dentary and other bone elements. At the lateral side of the coronoid and posterior upper part of the dentary there is a shelf-like area, forming a sharp lateral ridge at the posterior side of the jaw. A series of tubercles is developed along the lateral side of the jaw. Thirteen teeth preserved, the actural number may be a little more. They are sub-pleurodont, sharply pointed, slender with fine striations, only the anterior teeth curved slightly backwards.

Description The posterior of the jaw is damaged. The whole preserved part of the jaw looks slender mainly due to less height of the dentary. The lower border is straight. A long series of tubercles is developed at the side of the dentary and between the surangular and angular roughly parallel to the lower border of the jaw which is perfectly straight. No joint is clearly seen between the dentary and the other bones. Angular extends more anteriorly below the dentary. A shelf-like part with lateral ridge is developed at the lateral side of the coronoid and the posterior part of the dentary.

There are thirteen teeth preserved. There is a scar of one tooth at their anterior tip of the jaw and at least two more between the other ones. The total number is about 16. They are subequal in size, but the fifth one counted from the posterior end is especially large. All the teeth are slender and sharply pointed. They are directed straight upwards, only the three anterior ones curved slightly backwards. They are sub-pleurodont and fine striations are generally observable. Total preserved length, 52 mm; Maximum height from the upper summit of the coronoid downwards, 17 mm; length of the tooth row, 31 mm.

Comparisons The structure of the lower jaw and the teeth indicates that we are dealing with a member of the family Varanidae, especially in consideration of its pointed and loosely situated teeth. The relative position of the various bones pointed to the same conclusion. But the slenderness and straight lower border of the jaw, the sharp and almost upwardly directed

teeth etc. are special features of the Chiling specimen. It represents certainly a new varanid for which the name *Chilingosaurus chingshankouensis* gen. et sp. nov. is proposed.

Telmasaurus grangeri is the only varanid known in China, but the teeth of it are sharply bent backwards with rather broad base. The other genera of the family are more distantly related and need not be considered here.

According to the field observation, the age of the fossil described here is Early Cretaceous. As the result of the present investigation we feel that there is no question in regarding it as Cretaceous age. But in view that our form bears a series of advanced characters and differs considerably from the varanids of Lower Cretaceous, it may be more correct in considering the age of *Chilingosaurus* as Late Cretaceous.

图 版 I 說 明

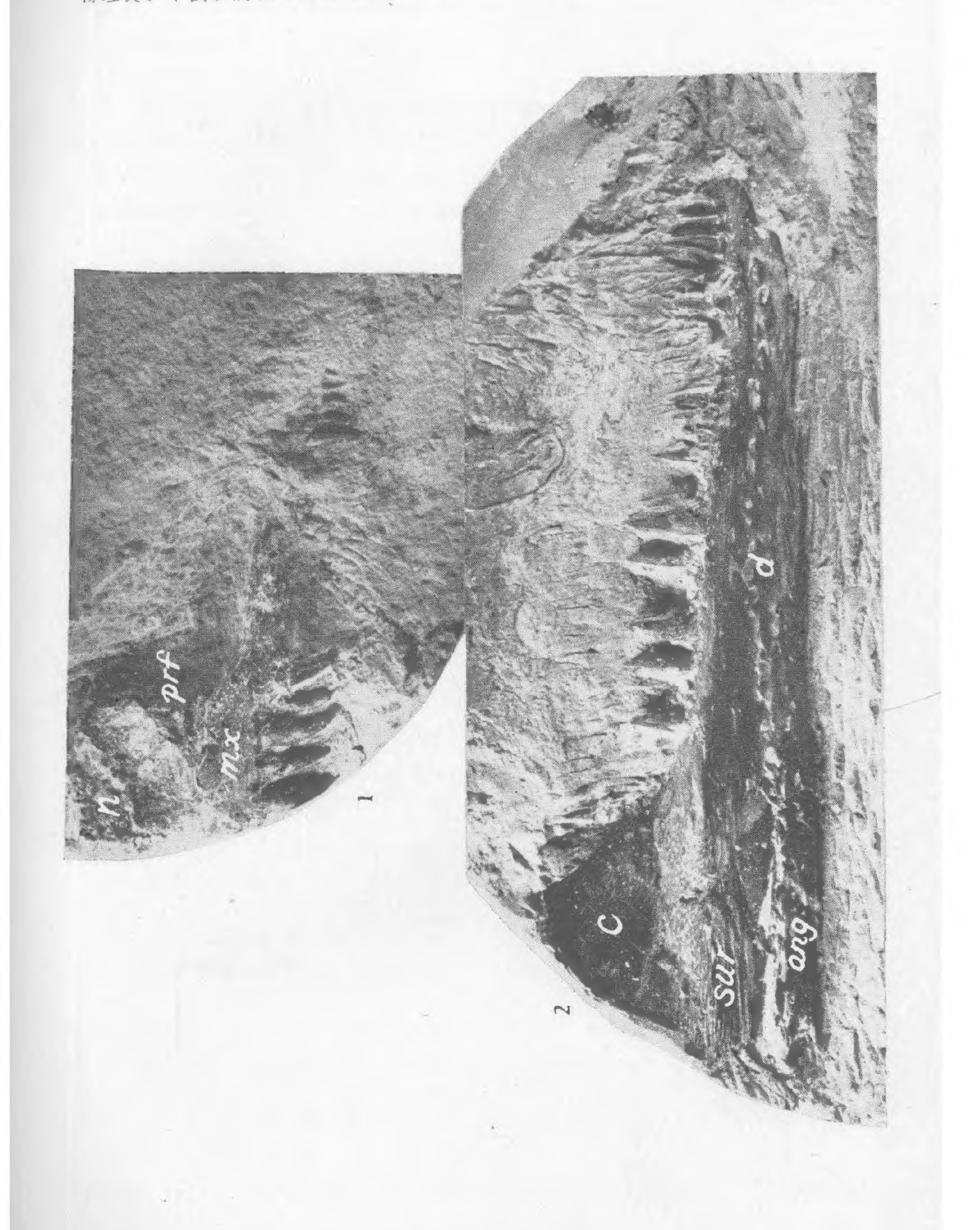
圖 1. 五图昌乐蜥，新屬新种，左上顎骨及其附近部分外視，放大三倍。(*Changlosaurus wuturnsis* gen. et sp. nov. Left maxilla and adjacent bones in lateral view ×3.)

圖 2. 青山口吉林蜥，新屬新种，右下顎骨，放大三倍。(*Chilingosaurus chingshankouensis* gen. et sp. nov. Right lower jaw in lateral view, ×3.)

簡 字 說 明

Abbreviations:

ang. angular 隅骨	d. dentary 齿骨	n. nasal 鼻骨	sur. surangular 上隅骨
c. coronoid 冠状骨	mx. maxilla 上顎骨	prf. prefrontal 前額骨	


n
prf
mx
1
C
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sur
ang
2